

## ABSTRACT OF DISCLOSURE

A projection optical system is disclosed with which undistorted  
5 images can be obtained at any image position within a  
specification range, and whose projection angle can be changed.  
The projection optical system includes a plurality of optical  
elements and a first optical system constituted by at least one  
of the plurality of optical elements having the ability to form  
10 an image with light onto a predetermined surface different from  
the projection surface. A projection image of the original image  
can be moved by rotating a first optical element of the plurality  
of optical elements substantially around a center of an exit pupil  
position of the first optical system as the rotation center.

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